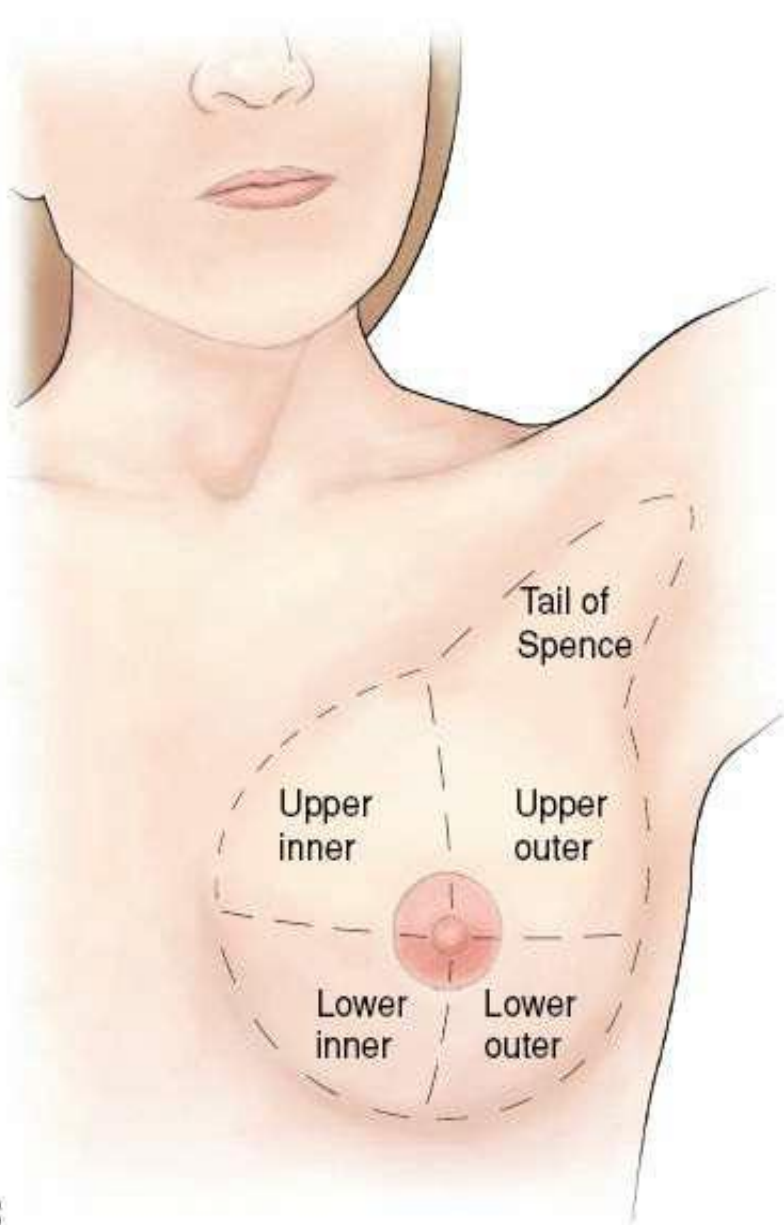
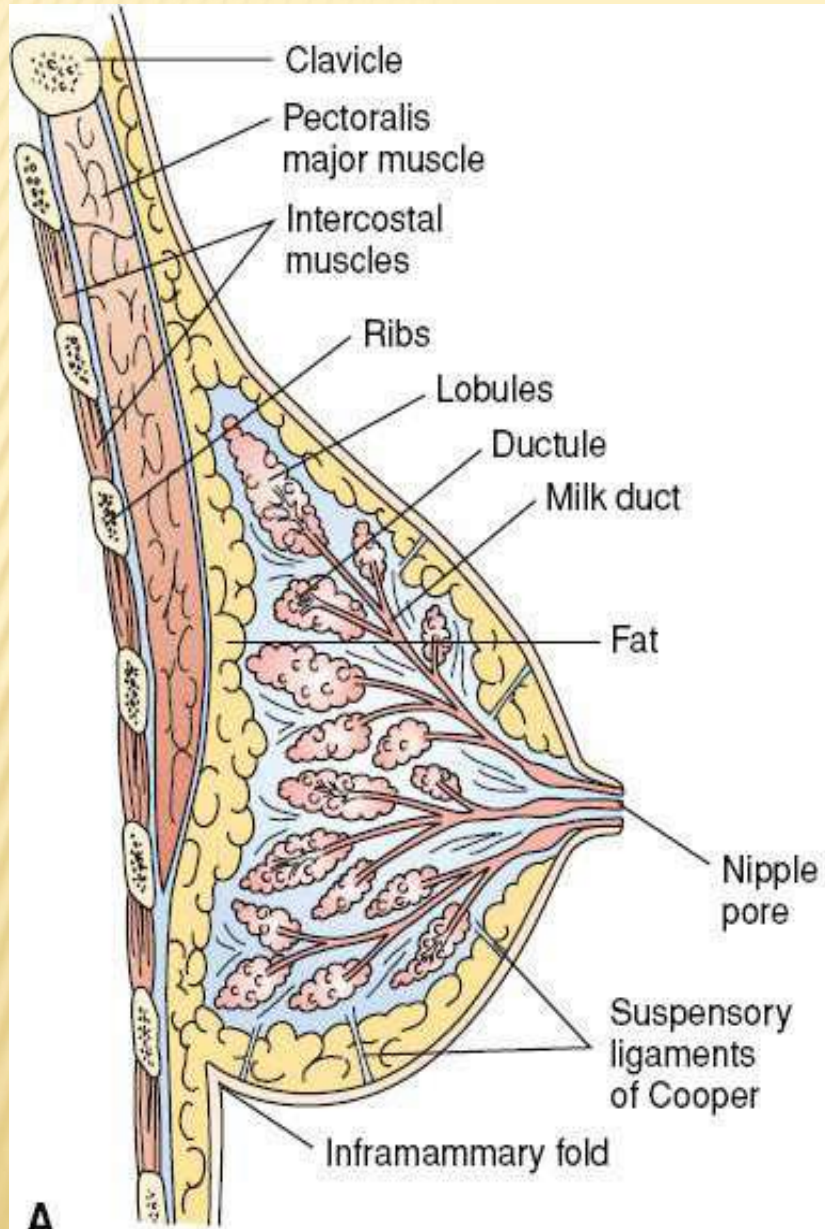




**THE PATIENT WITH BREAST CANCER  
SIGNS AND SYMPTOMS  
METHOD OF DIAGNOSIS  
NURSING CARE AND REHABILITATION**

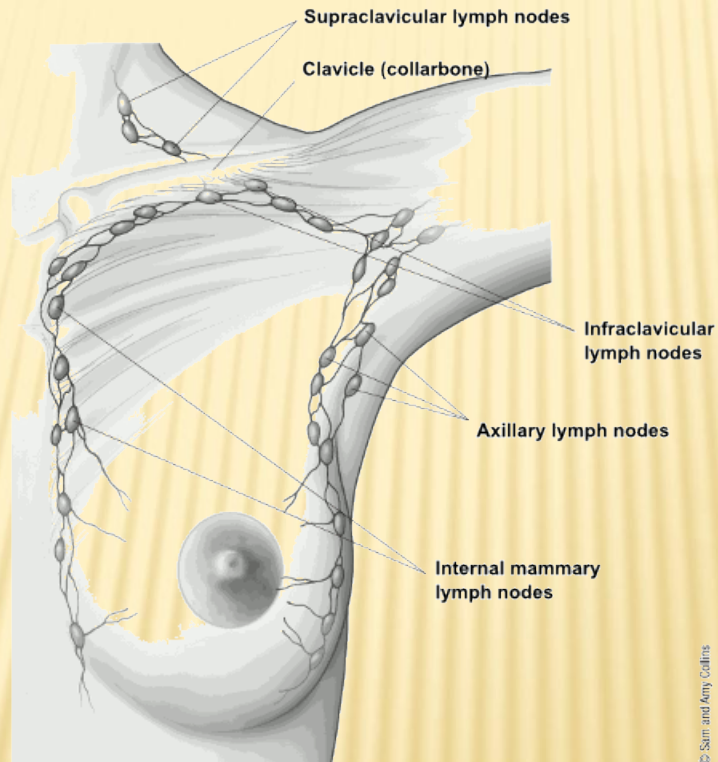
**PREPARED  
BY DR. BUSHRA KH**





A

B



© Sam and Amy Collins

**Lymph nodes in relation to the breast**

# **BREAST CANCER**

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Breast cancer is the development of malignant cells in the breast

The malignant cells originate in the lining of the milk glands or ducts of the breast (ductal epithelium), defining this malignancy as a cancer. Cancer cells are characterized by

uncontrolled division leading to abnormal growth and the ability of these

cells to invade normal tissue locally or to spread throughout the body, in a process called metastasis.

# TYPES OF BREAST CANCER

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✘ Breast cancer can begin in different areas of the breast — the ducts, the lobules, or in some cases, the tissue in between ,the different types of breast cancer, including:

- ✘ non-invasive

- ✘ invasive

- ✘ recurrent, and metastatic breast cancers

as well as the intrinsic or molecular sub types of breast cancer. we can also read about breast cancer in men

# SYMPTOMS & DIAGNOSIS

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- ✘ Breast cancer symptoms vary widely — from lumps to swelling to skin changes — and many breast cancers have no obvious symptoms at all.

Symptoms that are similar to those of breast cancer may be the result of non-cancerous conditions like infection or a cyst

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Those decisions depend on knowing characteristics such

as:

- ✗ the size and appearance of the cancer
  - ✗ how quickly it grows
- ✗ any signs of spread to nearby healthy tissues

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whether certain things inside the body —  
such as hormones or genetic mutations  
(abnormal changes in genes) — are factors  
in the cancer's growth and development



# STAGES OF BREAST CANCER

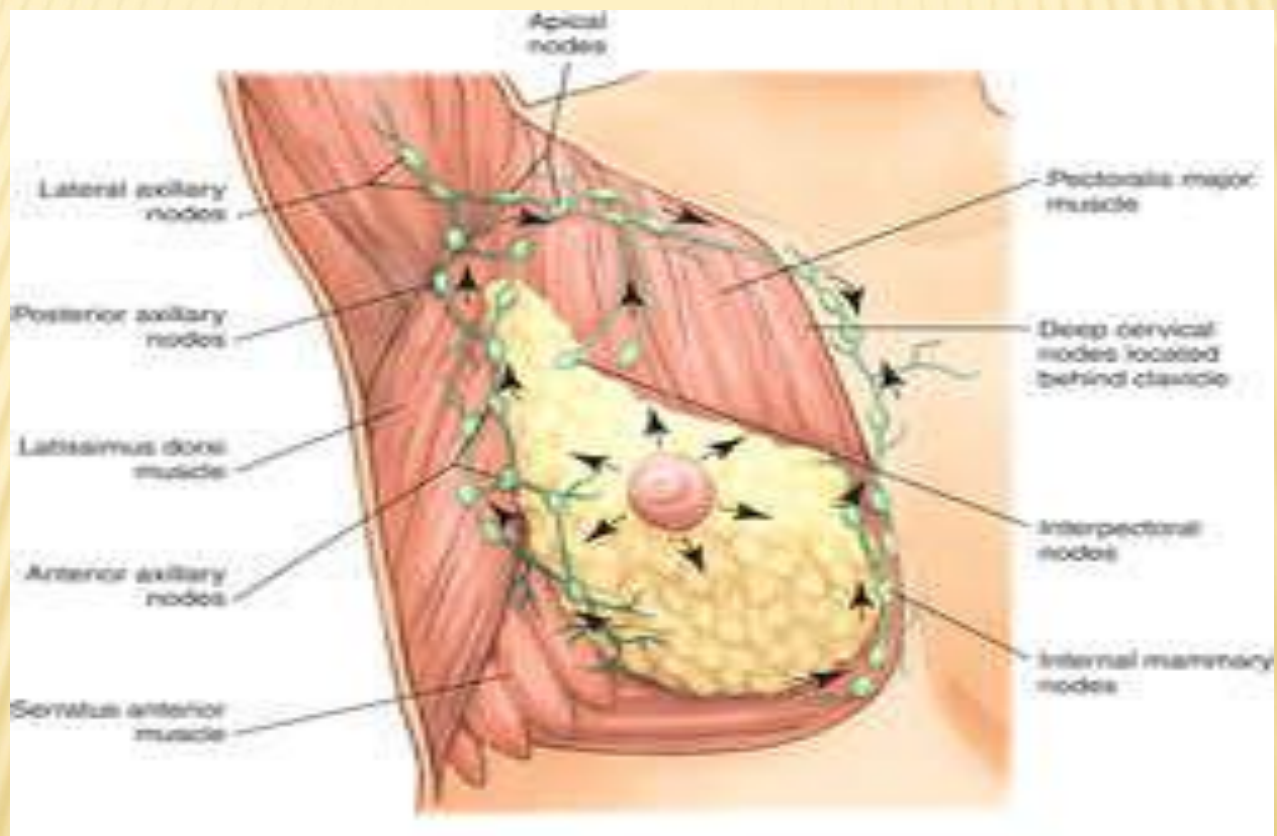
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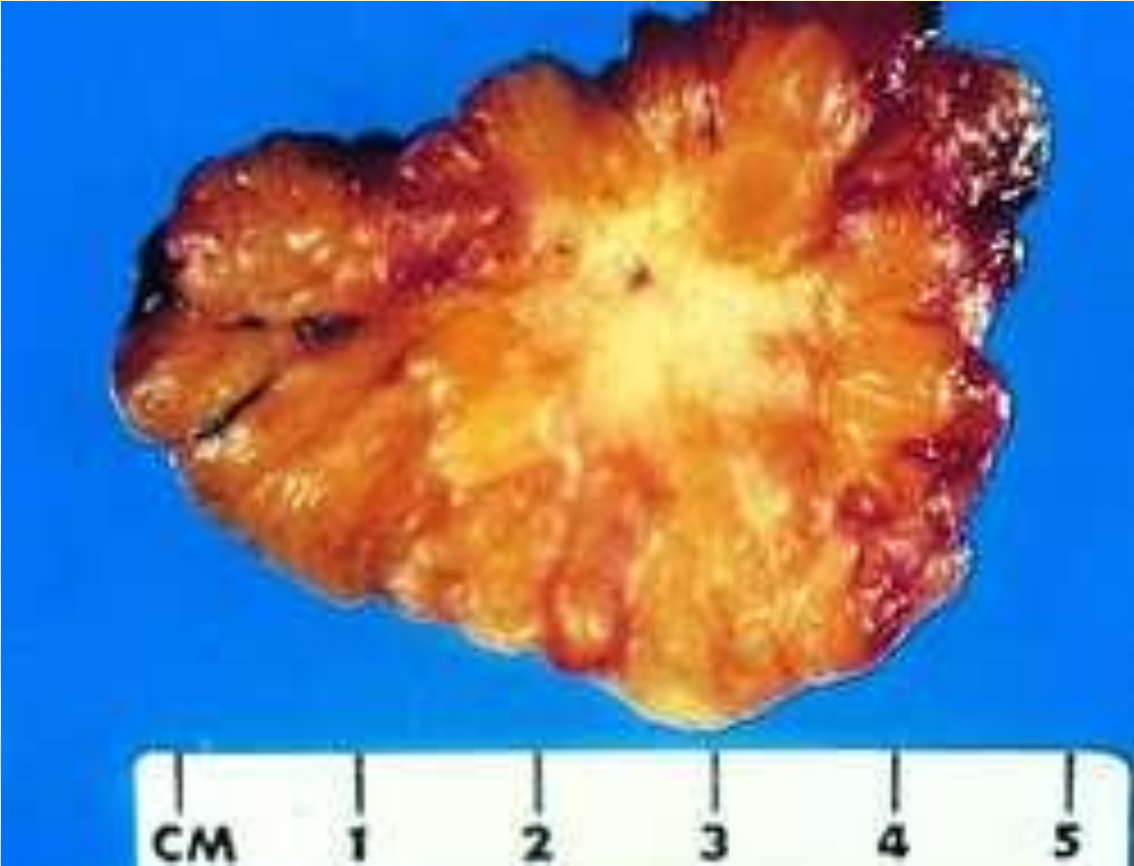
- ✘ Stage is usually expressed as a number on a scale of 0 through IV — with stage 0 describing non-invasive cancers that remain within their original location and stage IV describing invasive cancers that have spread outside the breast to other parts of the body.

- 
- × Stage 0
  - × Stage I
  - × Stage II
  - × Stage III
  - × Stage IV

## **CANCER STAGE IS BASED ON FOUR CHARACTERISTICS:**

- × the size of the cancer
- × whether the cancer is invasive or non-invasive
  - × whether cancer is in the lymph nodes
- × whether the cancer has spread to other parts of the  
body beyond the breast





# SYMPTOMS

Signs and symptoms of breast cancer may include:

- ✘ A breast lump or thickening that feels different from the surrounding tissue
- ✘ Change in the size, shape or appearance of a breast
- ✘ Changes to the skin over the breast, such as dimpling
  - ✘ A newly inverted nipple
- ✘ Peeling, scaling or flaking of the pigmented area of skin surrounding the nipple (areola) or breast skin
- ✘ Redness or pitting of the skin over your breast, like the skin of an orange



# Causes

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- ✘ It's not clear what causes breast cancer.
- ✘ breast cancer occurs when some breast cells begin growing abnormally. These cells divide more rapidly than healthy cells do and continue to accumulate, forming a lump or mass. The cells may spread (metastasize) through the breast to the lymph nodes or to other parts of the body.



- 
- ✘ Breast cancer most often begins with cells in the milk-producing ducts (invasive ductal carcinoma). Breast cancer may also begin in the glandular tissue called lobules (invasive lobular carcinoma) or in other cells or tissue within the breast.

- 
- ✘ Researchers have identified hormonal, lifestyle and environmental factors that may increase risk of breast cancer. But it's not clear why some people who have no risk factors develop cancer, yet other people with risk factors never do. It's likely that breast cancer is caused by a complex interaction of genetic makeup and environment.

- 
- ✘ Doctors estimate that about 5 to 10 percent of breast cancers are linked to gene mutations passed through generations of a family.

- ✘ **Risk factors**

- ✘ A breast cancer risk factor is anything that makes it more likely get breast cancer. But having one or even several breast cancer risk factors doesn't necessarily mean develop breast cancer. Many women who develop breast cancer have no known risk factors other than simply being women

- ✘ **Inherited genes that increase cancer risk.** Certain gene mutations that increase the risk of breast cancer can be passed from parents to children. The most common gene mutations are referred to as BRCA1 and BRCA2. These genes can greatly increase risk of breast cancer and other cancers, but they don't make cancer inevitable.

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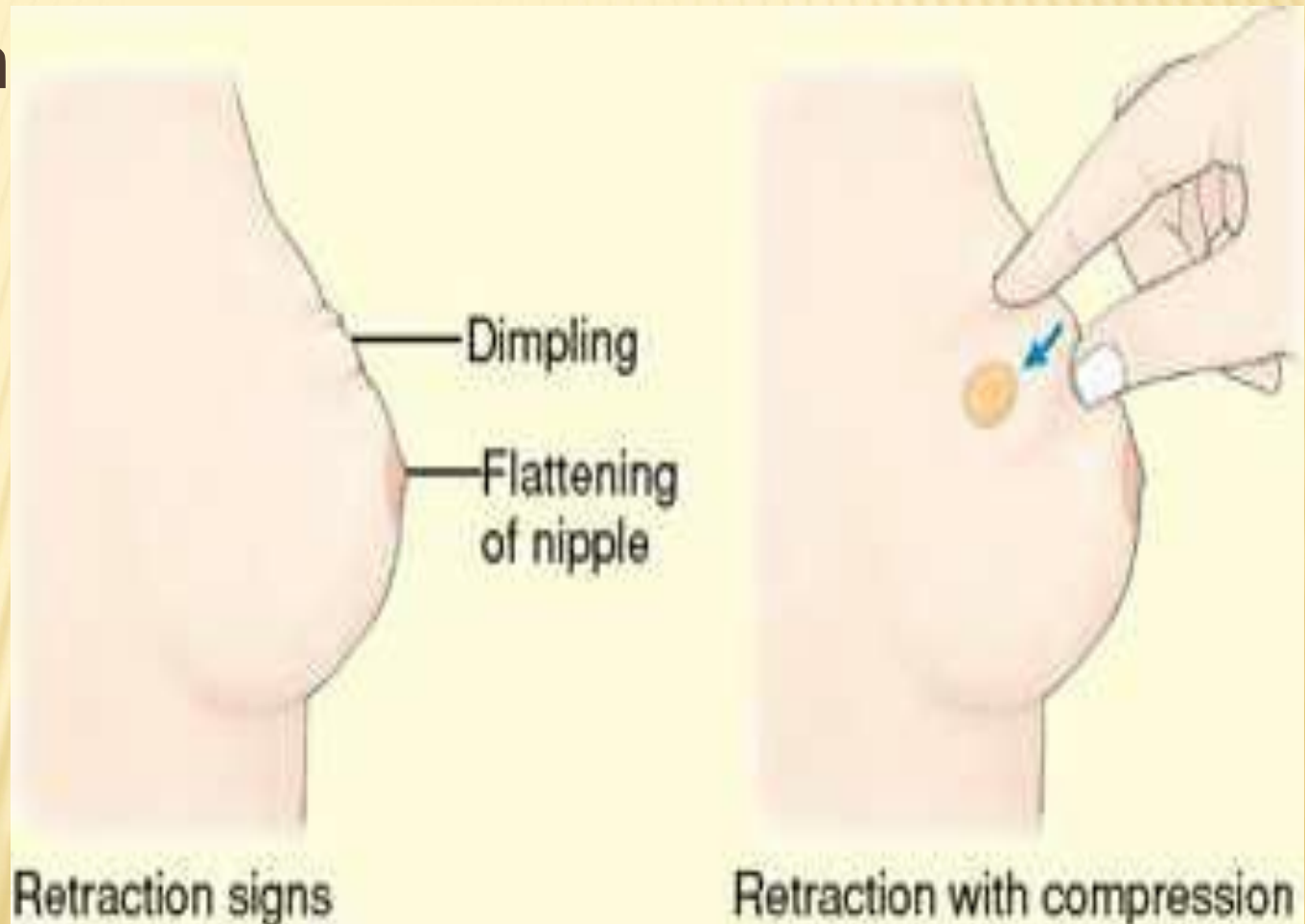
**Radiation exposure.** If received radiation treatments to chest as a child or young adult, risk of breast cancer is increased.

**Obesity.** Being obese increases risk of breast cancer

- ✘ **Beginning period at a younger age.** Beginning period before age 12 increases risk of breast cancer.
- ✘ **Beginning menopause at an older age.** If began menopause at an older age, it more likely to develop breast cancer.
- ✘ **Having first child at an older age.** Women who give birth to their first child after age 30 may have an increased risk of breast cancer.

# Physical Assessment: Female Breast

- ✘ Inspection
- ✘ Palpation





Increased venous prominence

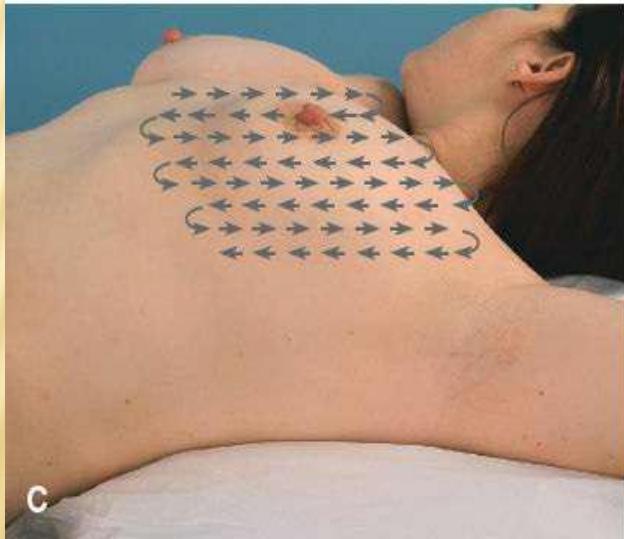


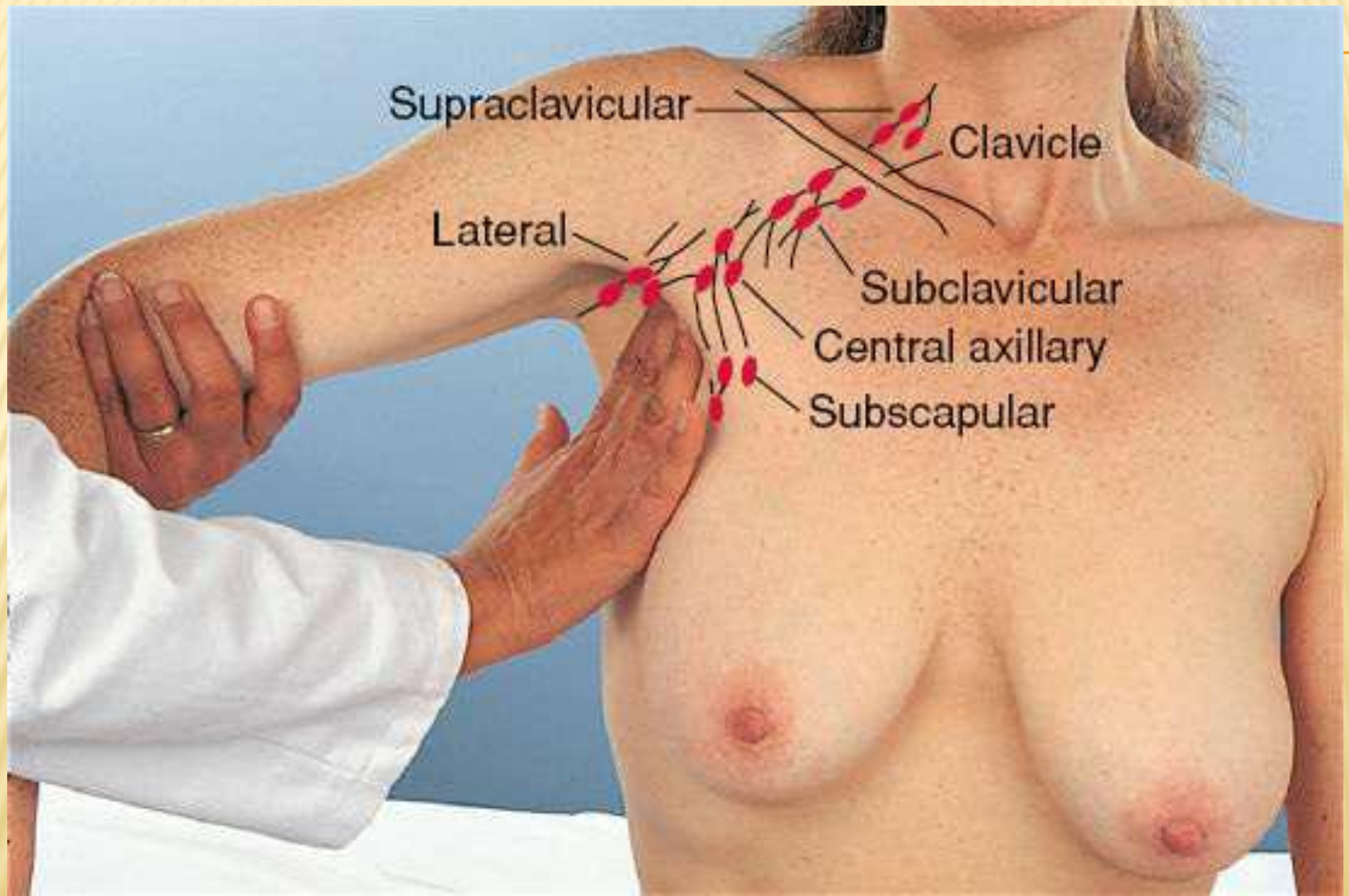


**Peau d'orange**



**Nipple inversion**





# Breast Self-Examination

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## Step 1

1. Stand in front of a mirror.
2. Check both breasts for anything unusual.
3. Look for discharge from the nipple, puckering, dimpling, or scaling of the skin.



## Step 2

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**Steps 2 and 3** are done to check for any changes in the contour of your breasts. As you do them, you should be able to feel your muscles tighten.

1. Watch closely in the mirror as you clasp your hands behind your head and press your hands forward.
2. Note any change in the contour of your breasts.

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## Step 3

1. Next, press your hands firmly on your hips and bow slightly toward the mirror as you pull your shoulders and elbows forward.
2. Note any change in the contour of your breasts.







## Step 4

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Some women do step 4 of the examination in the shower. Your fingers will glide easily over soapy skin, so you can concentrate on feeling for changes inside the breast.

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1. Raise your left arm.

2. Use three or four fingers of your right hand to feel  
your left breast  
firmly, carefully, and thoroughly.

- 
3. Beginning at the outer edge, press the flat part of your fingers in small circles, moving the circles slowly around the breast.
  4. Gradually work toward the nipple.

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5. Be sure to cover the whole breast.

6. Pay special attention to the area between the breast  
and the underarm,  
including the underarm itself.

7. Feel for any unusual lumps or masses under the  
skin.

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8. If you have any spontaneous discharge during the month—whether or not it is during your breast self-examination—see your primary provider.

9. Repeat the examination on your right breast.

## Step 5

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1. Step 5 should be repeated lying down.
2. Lie flat on your back with your left arm over your head and a pillow or folded towel under your left shoulder.



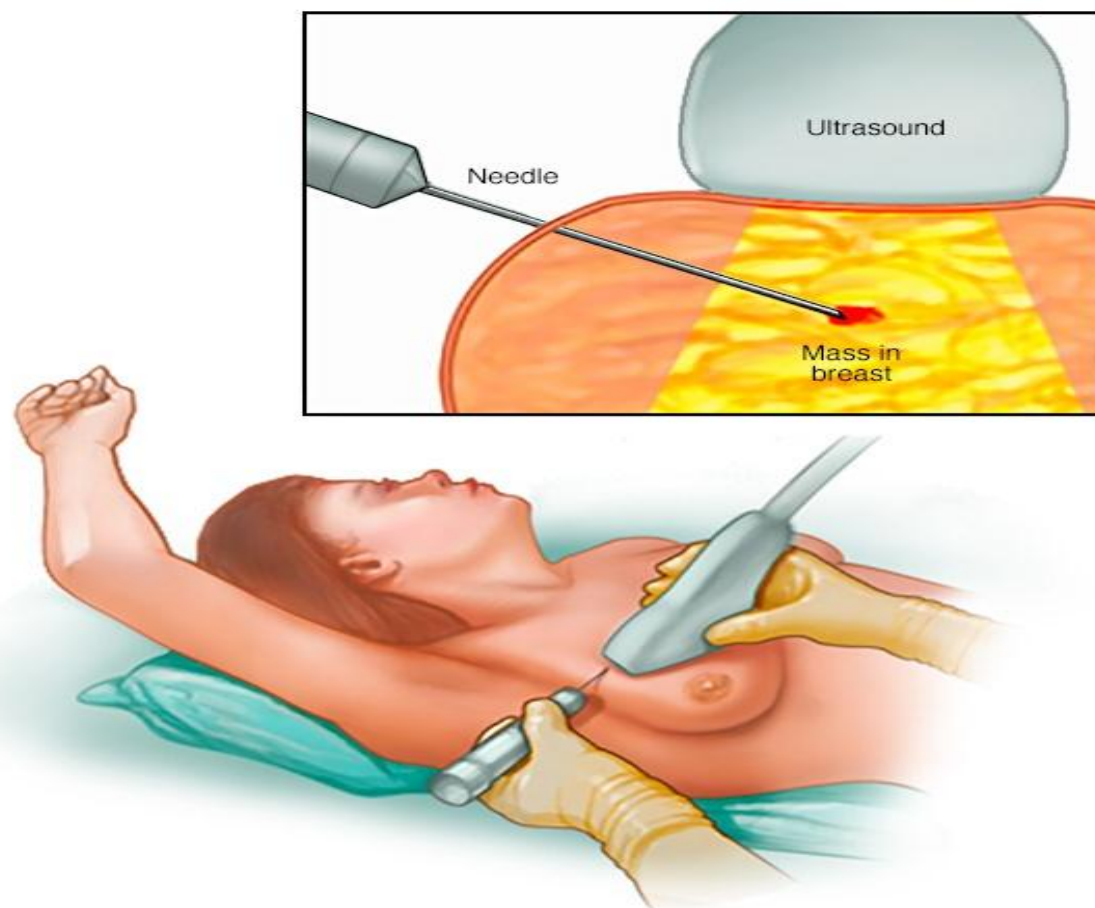
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(This position flattens your  
breast and makes it easier to check.)

3. Use the same circular motion described earlier.

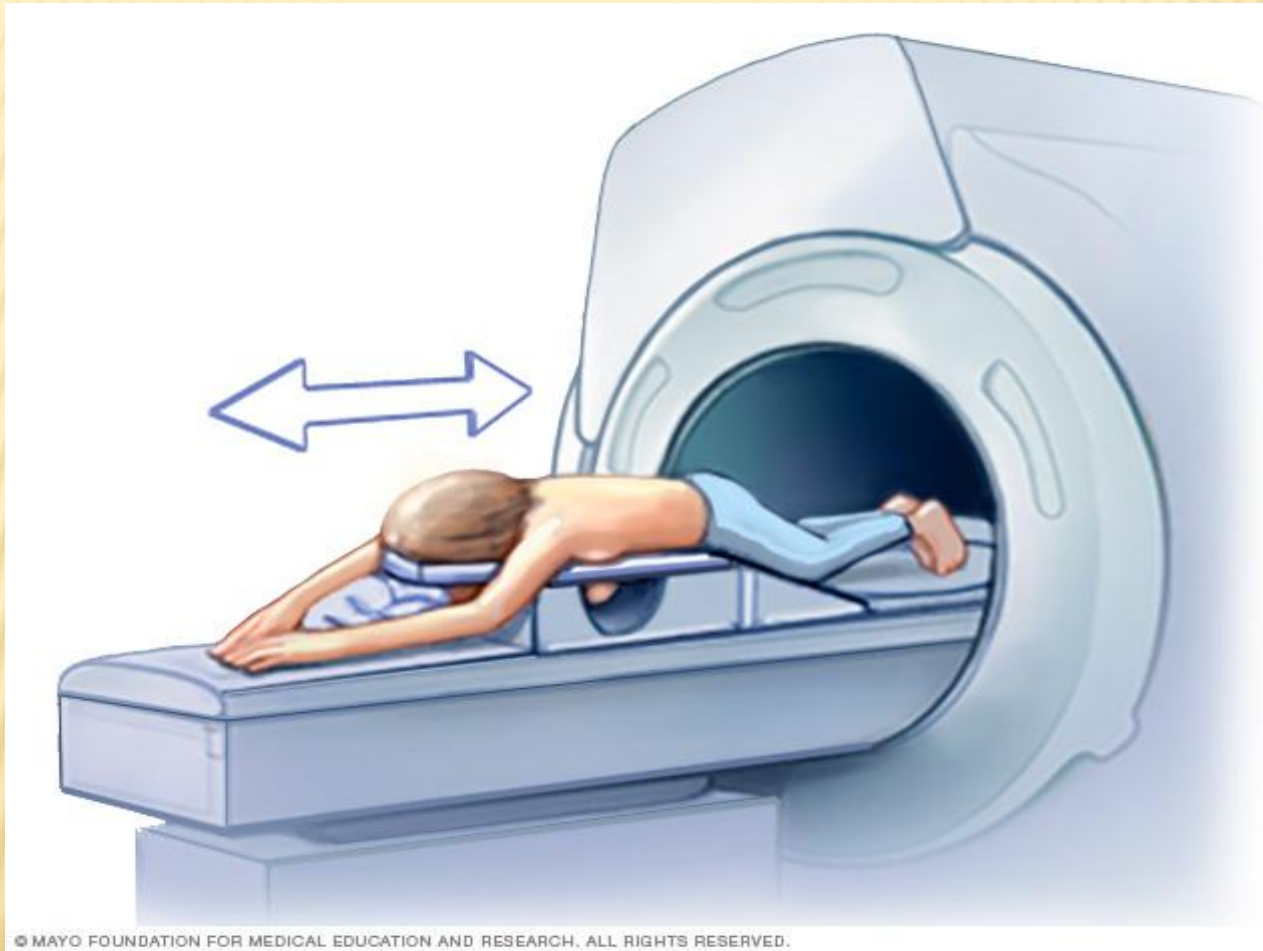
4. Repeat on your right breast.





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✘ **Breast ultrasound.** Ultrasound uses sound waves to produce images of structures deep within the body. Ultrasound may be used to determine whether a new breast lump is a solid mass or a fluid-filled cyst.



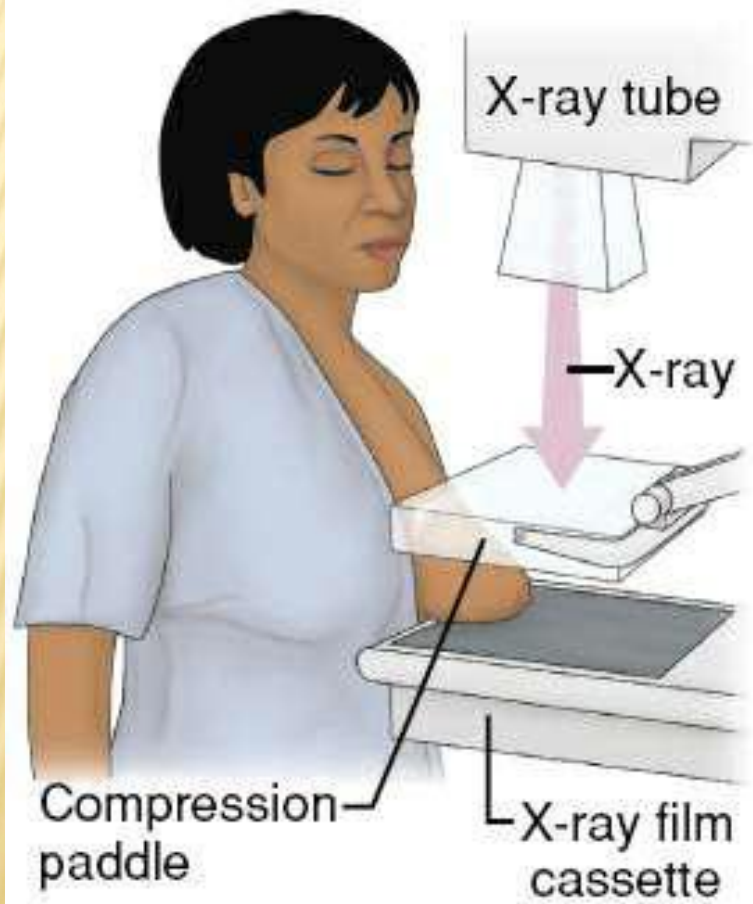
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# Mammography

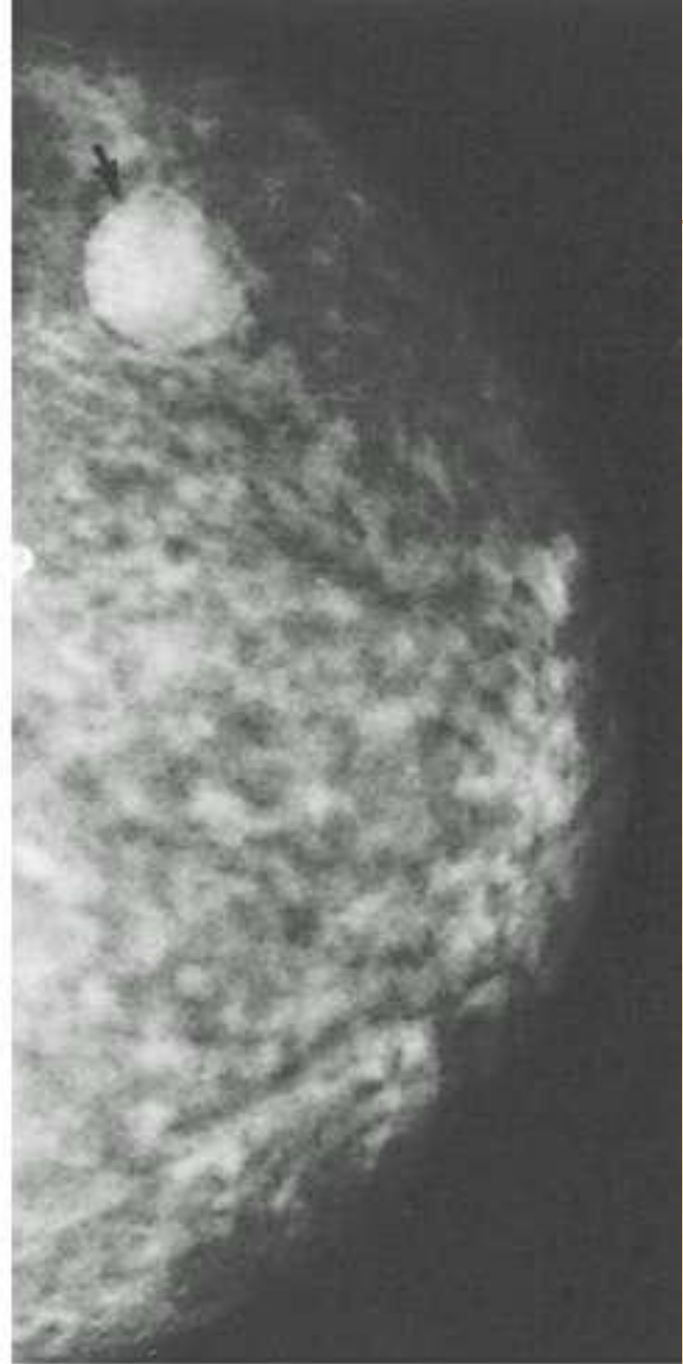
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Mammography is a breast imaging technique used to visualize the breast to detect small abnormalities that could suggest malignant or benign disease

The procedure takes about 15 minutes and can be performed in a hospital radiology department or independent imaging center.



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**Ultrasonography (ultrasound):** is used as a diagnostic

adjunct to

mammography to help distinguish fluid-filled cysts from

other lesions.

**Magnetic Resonance Imaging (MRI)** the breast is a highly

sensitive test

that has become a useful diagnostic adjunct to

mammography.

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A magnet is  
linked to a computer that creates detailed images of the  
breast without exposure to radiation.



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**Fine-needle aspiration (FNA):** is a biopsy technique that is generally well tolerated by most women. A local anesthetic may or may not be used.

A small-gauge needle (25 or 22 gauge) attached to a syringe is inserted into the mass or area of nodularity.

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## Surgical Biopsy

Surgical biopsy is usually performed using local anesthesia and intravenous (IV) sedation. After an incision is made, the lesion is excised and sent to a laboratory for pathologic examination.

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## Types of Surgical Breast Biopsy

### Excisional Biopsy

Excisional biopsy is the standard procedure for complete pathologic

assessment of a palpable breast mass. The entire mass, plus a margin of surrounding tissue, is removed.

- 
- ✘ ***Breast cancer risk reduction for women with an average risk***
  - ✘ Making changes in daily life may help reduce risk of breast cancer. Try to:
    - ✘ **Ask doctor about breast cancer screening.** Discuss with doctor when to begin breast cancer screening exams and tests, such as clinical breast exams and mammograms.

- 
- ✘ **Become familiar with your breasts through breast self-exam for breast awareness.**

Women may choose to become familiar with their breasts by occasionally inspecting their breasts during a breast self-exam for breast awareness. If there is a new change, lumps or other unusual signs in your breasts, talk to your doctor promptly.

- 
- ✘ Breast awareness can't prevent breast cancer, but it may help you to better understand the normal changes that your breasts undergo and identify any unusual signs and symptoms.

- 
- ✘ **Exercise most days of the week.**
  - ✘ Aim for at least 30 minutes of exercise on most days of the week. If you haven't been active lately, ask your doctor whether it's OK and start slowly.

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## **Limit postmenopausal hormone therapy**

Combination hormone therapy may increase the risk of breast cancer. Talk with your doctor about the benefits and risks of hormone therapy.



✘ To reduce the risk of breast cancer, use the lowest dose of hormone therapy possible for the shortest amount of time.

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✘ **Maintain a healthy weight.** If your weight is healthy, work to maintain that weight. If you need to lose weight, ask your doctor about healthy strategies to accomplish this. Reduce the number of calories you eat each day and slowly increase the amount of exercise.

- 
- ✘ **Choose a healthy diet.** Women who eat a Mediterranean diet supplemented with extra-virgin olive oil and mixed nuts may have a reduced risk of breast cancer. The Mediterranean diet focuses mostly on plant-based foods, such as fruits and vegetables, whole grains, legumes, and nuts. People who follow the Mediterranean diet choose healthy fats, such as olive oil, over butter and fish instead of red meat.

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✘ **Preventive surgery.** Women with a very high risk of breast cancer may choose to have their healthy breasts surgically removed (prophylactic mastectomy). They may also choose to have their healthy ovaries removed (prophylactic oophorectomy) to reduce the risk of both breast cancer and ovarian cancer.

- 
- ✘ **Breast magnetic resonance imaging (MRI).** An MRI machine uses a magnet and radio waves to create pictures of the interior of your breast. Before a breast MRI, you receive an injection of dye.
  - ✘ Other tests and procedures may be used depending on your situation.

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## ✘ Treatment

- ✘ The doctor determines breast cancer treatment options based on type of breast cancer, its stage and grade, size, and whether the cancer cells are sensitive to hormones. doctor also considers overall health and own preferences.

- 
- ✘ Most women undergo surgery for breast cancer and also receive additional treatment before or after surgery, such as chemotherapy, hormone therapy or radiation